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AUTHOR Warmkessel, Marjorie M.
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ABSTRACT

The language of information technology is discussed, with a focus on accessibility in the information society. The metaphors of information technology as an "information superhighway" or "infobahn" are analyzed; limitations of the "road system" and developments of Internet systems are considered. The concept of connectivity of the rhizome in "A Thousand Plateaus" by DeLeuze and Guattari is introduced, with discussion on the lack of a fixed order or hierarchical structure on the Internet. The similarities of World Wide Web to the rhizome in lack of structure are noted. An excerpt from Borges's "Garden of Forking Paths" is used to illustrate the nonlinear pattern of the Internet. The argument that the study of communication and information technology must consider more than the ability to manipulate time, or "spacial view," of technology is applied to the Internet. A comparison is made between DeLeuze and Guattari's discussion of the body without organs and Philip Elmer-Dewitt's article in "Time" on the history of the Internet. The effect of information technology on the future of human interaction is discussed, with a focus on electronic mail and the use of technology as a facilitator of communication; and the lack of hierarchical social structure via the Internet is also considered. (AEF).

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The Language of Information Technology:

Accessibility in the Information Society

Marjorie M. Warmkessel

Coordinator of Information Access Services
Helen A. Ganser Library
Millersville University
Millersville, PA 17551

mwarmkes@marauder.millersv.edu

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Speech Communication Association
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In recent months it's been difficult to get away from the language of information technology. Articles from the popular press as well as segments on the evening news serve to remind us that we are living through a revolution. Even those who a few years ago were skeptical about how extensive an impact the new information technologies might actually have on society as a whole are now believers, equating the phenomenon of the information explosion and the rapid growth of communications technology today with the development of movable type in fifteenth-century Europe or with the establishment of railway networks and other transportation systems in the nineteenth and early twentieth centuries. We read and hear that first world countries are moving from an industrially-based economy to an information-based economy, a situation that will inevitably result in a marked distinction between two social classes: the information rich and the information poor.

The metaphors of information technology are numerous, most equating the structure to an enormous system of roads. Terms like the "information superhighway" or the "infobahn" complete with such accessories as "on ramps," "off ramps," and "traffic jams" seem to suggest that once we have access to the proper equipment, we will all be able to drive happily along, cheerily greeting our fellow travelers, and, as the mood strikes us, getting off the highway to visit a site of particular interest.

Such a metaphor, while perhaps relatively easy to understand, is also misleading. While it allows for a certain amount of

individual choice to those of us attempting to navigate the system, in contrast to the structure of existing networks of information technology (and, for all practical purposes, I am really talking about the Internet) our highway systems are full of detours and dead ends. Certainly in many parts of Pennsylvania (and I suspect that this is true in other parts of the world as well) there are places we find we are unable to get to directly due to the limitations of the road system. The phrase "you can't get there from here," however, does not apply to the Internet, especially with the recent growth of such systems as the World Wide Web and the development of such programs as Lynx and Mosaic. With these tools, we can literally jump directly from one point on the Internet to almost any other point simply with the click of a mouse.

This brings me to the theories of DeLeuze and Guattari who, in the introduction to A Thousand Plateaus discuss the concept of the rhizome. By their definition, "any point of a rhizome can be connected to anything other, and must be. This is very different from the tree or root which plots a point, fixes an order" (1987: 7). If there is one thing that is constant about the Internet at the moment it is that there is no fixed order. There is no hierarchical structure, no controlling individual or individuals, no single governing body, no owner. In such a construct, any rules that exist are difficult to enforce. Those things included in the category of "Netiquette," are, for all practical purposes, there simply as guidelines or generally accepted conventions. There are

no "rules of the road" in the same sense that we have them on our paved highways. While a certain amount of training and experience might help us to become better navigators, no one is required to pass a test in order to be licensed to travel along the "information superhighway."

Above I mentioned the World Wide Web, a hyper-text based system that consists of documents which contain multiple links to other documents which, in turn, have links to other documents. The similarities to the rhizome seem obvious to me. Travelling through the World Wide Web, I can customize my route as I go along. I do not have to proceed in a linear fashion, but can move from place to place directly in a sequence that seems logical or interesting to me. The only way the "superhighway" metaphor can fit this construct would be if it were possible for me to instantly build my own roads in exactly the directions I wanted to travel as I was driving. Other internet tools, such as gopher, may seem to have more hierarchical structures. Gopher allows for travelling through the internet using a series of menus. Each menu seems to lead us deeper and deeper through what appear to be various levels of the Internet. But, this is not actually the case, as we can very quickly and unexpectedly find ourselves back where we started.

Something very important to keep in mind is that the Internet is constantly changing. A path might exist one day and be gone the next, and then suddenly reappear the following week. This phenomenon reminds me of a story by Jorge Luis Borges. The story is not <u>The Library of Babel</u> as might have been expected, but <u>The</u>

Garden of Forking Paths. The story presents a mystery about a work of literature which seems the work of a madman. Near the end of the story it is revealed that the work is an attempt to explain the author's conception of time. Borges explains the author's views as follows:

> He believed in an infinite series of times, in a dizzily growing, ever spreading network of diverging, converging and parallel times. This web of time--the strands of which approach one another, bifurcate, intersect or ignore each other through the centuries--embraces every possibility (1962: 100).

In The Garden of Forking Paths every possibility exists simultaneously in the same space. The concept of time is envisioned in nonlinear terms. Events do not necessarily follow a linear progression of cause and effect, but seem to occur almost in an arbitrary manner. The passage above explains that these seemingly random occurrences do, in fact, have a logical explanation. When every possibility exists in a web of intersecting line, then time can be seen as something that is not constant. There are multiple paths that lead from one point in time to another, just as there are multiple paths that connect the various points of a rhizome.

John Macgregor Wise has used the theories of DeLeuze and Guattari to develop a spatial view of technology. Arguing that the study of communication and information technology must consider more than just the ability to manipulate time, he writes that "A spatial view of technology involves the relationships in space

between technologies, placing significance on the actual dispersion of technology and relations of dependence and support between any particular technology and various social, chemical and biological dimensions" (1993: 1). While Wise applies this theory to the scheduling of trains within a broader railway network, we can easily find a similar application of such a spatial view of technology with regard to the Internet.

Returning to A Thousand Plateaus, let's consider DeLeuze and Guattari's discussion of the body without organs. Such an entity, they write, is "permeated by unformed, unstable matters, by flows in all directions, by free intensities or nomadic singularities, by mad or transitory particles" (1987: 40). In a brief article on the history of the Internet which appeared not too long ago in Time, Philip Elmer-Dewitt uses terms which are strikingly similar to DeLeuze and Guattari's description of the body without organs. Explaining Baran's Packet Switching Network, a computer application designed for the military in the 1960s, he describes how messages were put into electronic packets. "The packets were then released like so much confetti into the web of interconnected computers, where they were tossed back and forth over high-speed wires in the general direction of their destination and reassembled when they finally got there" (1993: 62). Forming the foundation of the internet as we know it today, this system implies no sense of hierarchy and no central hub. It suggests, instead, the rhizome at work, where any point is connected to any other point.

What then, is the effect of such a system on the future of

human interaction? Using electronic mail, we can easily communicate with people we know. In this sense we can take advantage of technology as a way of manipulating time. No more making multiple phone calls trying to set up a meeting time for a committee; no more telephone tag trying to catch someone in when we happen to have the time to make the call; and no more reliance on the postal system. With e-mail we can send messages when it's convenient for us and we can receive messages when it's convenient for us. An interesting phenomenon is that communication on the Internet is not limited only between people who already know each other. There are myriad opportunities to get to know new people, most of whom we will likely never actually meet in person. As has been suggested before, use of the new technology as a facilitator of communication has a spatial side as well. Thanks to some of the newer Internet tools, not only can we leave messages for people, but we can "visit" them at their "home pages" on the World Wide Web. Without even talking to them in real time, we can discover things about them. Perhaps we can see what they look like or learn about those things that are important or interesting to them.

Of course, we are readily accepting them for who they say they are. Consider the well known cartoon that claimed that on the Internet no one knows you're a dog. People can easily take on a new persona or multiple personae in their interaction with others. I've heard stories, perhaps part of the new urban folklore but I assume they at least have their basis in reality, of internationally-known scholars who have discussed their work via e-

mail with people they assume to professors at other institutions only to find out six months later that they have been carrying on conversations with junior high school students. And by that time it doesn't matter. Not only is there no hierarchical structure in the organization of information available via the Internet, but there is no hierarchical social structure either. No hierarchical social structure, that is, for those already on the Internet. The issue, then, is one of access.

Returning to the "superhighway" metaphor, perhaps in this sense it does function effectively. Although the comparison of the Internet with a system of roads does not work completely, comparing access to the Internet with access to a major transportation system does seem plausible. Those of us already on the Internet may, in fact, be having conversations with dogs or other beings we might not normally communicate with. By contrast, however, those waiting for access may feel like they are facing Cerberus, the three-head dog who guards the gates of Hell. Perhaps some people are justified in thinking that Hell would, in fact, be a better metaphor for the Internet than "information superhighway." But just remember that even Dante had Virgil as his guide through the inferno.

References

Borges, Jorge Luis (1962) Ficciones. New York: Grove Press, Inc.

DeLeuze, Gilles, and Guattari, Felix (1987) A Thousand Plateaus: Capitalism and Schizophrenia. Trans. Brian Massumi. Minneapolis: University of Minnesota Press.

Elmer-Dewitt, Philip (1993, December 6) First Nation in Cyberspace. Time, 142, 62-64.

Wise, John Macgregor (1993, November 18) Towards a Spatial View: DeLeuze and Guattari on Technology. Paper presented at the 79th Annual Meeting of the Speech Communication Association, Miami Beach, Florida.